

CLAIMS

1. A recording and reproducing apparatus comprising:

reproducing means for reproducing main data and first management data for managing said main data that are recorded in a first recording medium,

recording and reproducing means for recording in and reproducing from a second recording medium the main data reproduced from said first recording medium and second management data for managing said main data to be recorded,

end detection means for detecting an end of each track of the main data reproduced from said reproducing means,

complete reproducing detection means for detecting that said track has been reproduced completely,

management data renewal means for renewing the second management data to be recorded in said second recording medium based on detection results from said end detection means and said complete reproducing detection means, and

control means for controlling recording the main data reproduced from said first recording medium into said second recording medium based on said second management data, and controlling said management data renewal means so as to renew said second management data when said main data is recorded in said second recording medium.

2. A recording and reproducing apparatus according to claim 1, wherein

said second management data is renewed based on reproduction order of tracks recorded in said first management

data.

3. A recording and reproducing apparatus according to claim 2, further comprising:

reproduction order changing means for making tracks of the main data reproduced from the first recording medium in reproduction order different from that of tracks recorded in said first management data, wherein

even though the main data recorded in said first recording medium is reproduced in reproduction order different from that of tracks recorded in said first management data by said reproduction order changing means, said second management data is renewed by said management data renewal means based on reproduction order of tracks recorded in said first management data.

4. A recording and reproducing apparatus according to claim 3, wherein

said reproduction order changing means decides reproduction order of the main data from said first recording medium based on an input from an operation means operated by a user.

5. A recording and reproducing apparatus according to claim 3, further comprising

random numbers generator means for generating random numbers, wherein said reproduction order changing means decides reproduction order of the main data prerecorded in said first recording medium based on random numbers generated by said random numbers generator means.

6. A recording and reproducing apparatus according to claim 1, wherein

when it is estimated based on said second management data that the main data prerecorded is being reproduced from said first recording medium, recording of said main data being reproduced into said second recording medium is restricted.

7. A recording and reproducing apparatus according to claim 1, wherein

when it is estimated that the main data not yet recorded in the second recording medium is reproduced from said first recording medium, said control means controls said management data renewal means so as to renew said second management data based on management data concerning the main data not yet recorded in the second recording medium, that is reproduced from said first recording medium.

8. A recording and reproducing apparatus according to claim 1, further comprising

divider means that divides the main data recorded in the second recording medium based on an end detection signal of each track of the main data from said end detection means for recording.

9. A recording and reproducing method for a recording and reproducing apparatus including reproducing means for reproducing main data and first management data for managing said main data that are recorded in a first recording medium, recording and reproducing means for recording in a second recording medium and reproducing from the second recording

medium the main data reproduced from said first recording medium and a second management data for managing said main data to be recorded, and control means for making various controls, in which recording or reproduction of said main data is performed based on said second management data, the recording and reproducing method comprising the steps of:

detecting an end of each track of the main data reproduced from said reproducing means,

detecting that said track has been reproduced completely,

renewing the second management data to be recorded in said second recording medium based on detected results of said end detection step and said complete reproducing detection step, and

controlling recording the main data reproduced from said first recording medium in said second recording medium based on said second management data, and controlling said management data renewal step so as to renew said second management data by said control means when said main data is recorded in said second recording medium.

10. A recording and reproducing method according to claim 9, wherein

said second management data is renewed based on reproduction order recorded in said first management data.

11. A recording and reproducing method according to claim 10, further comprising

a reproduction order changing step of making tracks of the main data reproduced from said first recording medium in reproduction order different from reproduction order of tracks

recorded in said first management data, wherein

even though the main data recorded in said first recording medium is reproduced in reproduction order different from that of tracks recorded in said first recording medium by said reproduction order changing step, said second management data is renewed by said management data renewal step based on the reproduction order of tracks recorded in said first management data.

12. A recording and reproducing method according to claim 11, wherein

reproduction order of the main data from said first recording medium is determined based on an input from operation means operated by a user in said reproduction order changing step.

13. A recording and reproducing method according to claim 11, further comprising

a random number generating step of generating random numbers, wherein reproduction order of the main data recorded in said first recording medium is determined in said reproduction order changing step based on the random numbers generated in said random number generating step.

14. A recording and reproducing method according to claim 9, wherein

when it is estimated based on said second management data that the main data already recorded is being reproduced from said first recording medium, recording said main data being reproduced in said second recording medium is restrained in said

controlling step.

15. A recording and reproducing method according to claim 9, wherein

when it is estimated in said control step that the main data not yet recorded in the second recording medium is reproduced from said first recording medium, said management data renewal step is controlled so as to renew said second management data based on management data concerning the main data that is reproduced from said first recording medium and not yet recorded in the second recording medium.

16. A recording and reproducing method according to claim 9, further comprising

a divide step of dividing the main data to be recorded in the second recording medium based on an end detection signal of each track of the main data from said end detection step for recording.